# Viral RNA / DNA purification products from MACHEREY-NAGEL

Viral RNA and DNA for In-Vitro Diagnostics

CE-IVD marked isolation of viral RNA and DNA from human plasma and serum

**NucleoSpin® Dx Virus** 



CE-IVD marked in accordance with EU Directive 98/79/EC For EDTA and citrate treated samples
Highly sensitive and reliable extraction

... even from a broad range of viral titers

**MACHEREY-NAGEL** 

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# **NucleoSpin® Dx Virus**

### Viral RNA and DNA from human plasma and serum for in-vitro diagnostics

- CE-IVD marked in accordance with EU Directive 98/79/EC Compliant with IVD directives in the EU
- Fits into in-vitro diagnostic workflows

CE-marked viral RNA and DNA isolation from plasma and serum
Can be combined with common enzymatic amplification and detection of viral RNA or DNA

- Compatible with fresh or frozen samples treated with EDTA or citrate
- Highly consistent viral RNA and DNA isolation
  Reproducible isolations from different titers for reliable downstream applications
- Suitable for animal samples
  The intended use allows veterinary applications, which are non-IVD

#### **Procedure**

Sample lysis

plasma serum



Mix sample and Lysis Buffer containing carrier RNA Add Proteinase K for viral DNA extraction 5 min incubation

**Binding of viral RNA/DNA** 





Add ethanol and transfer lysate onto NucleoSpin® Dx Virus Column

Washing





Pipette 1<sup>st</sup> Wash Buffer (high salt concentration) Pipette 2<sup>nd</sup> Wash Buffer (low salt concentration)

**Elution of viral RNA/DNA** 





Elute in 50 µL RNase-free water or elution buffer

### Product at a glance

Technology	Silica-membrane technology
Format	Mini spin columns
Sample material	Plasma or serum, fresh or frozen, EDTA or citrate treated
Sample volume	150 μL
Elution volume	50 μL
Processing	Centrifugation
Preparation time	~30 min/4 – 6 preps



## Reliable isolation of viral nucleic acids for diagnostic workflows

Sample collection (serum or plasma)

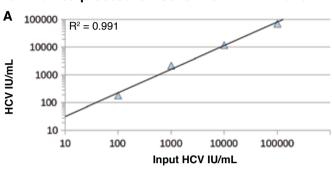
Nucleic acid isolation (NucleoSpin® Dx Virus)

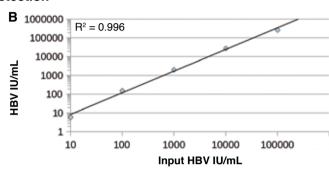
Downstream detection system

NucleoSpin® Dx Virus is a generic kit which can easily be integrated into *in-vitro* diagnostic workflows. The kit allows the purification of nucleic acid from different viruses and can be used in combination with a broad range of downstream assay systems. The system is suitable for fresh and frozen samples treated with EDTA or citrate.

#### **Application data**

### CE-marked procedure – sensitive viral DNA and RNA detection



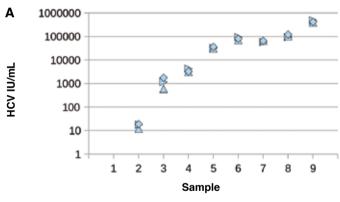


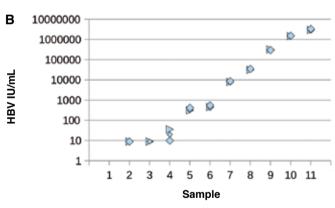
Detection of viral RNA and DNA in Real-time PCR (Artus RealArt HCV RNA/HBV DNA; Roche LightCycler® 480), purified by NucleoSpin® Dx Virus. Nucleic acids were purified from virus samples of different titers and used for quantification.

- A) Detection of RNA from HCV samples of different titers.
- B) Detection of DNA from HBV samples of different titers.

Data was generated by Dr. Tiemann, LABCON-OWL GmbH, Germany.

#### High reproducibility of isolation and detection





Reproducibility of HCV and HBV detection. RNA and DNA from virus samples of different titers were isolated in triplicate by NucleoSpin® Dx Virus for downstream diagnostic quantification.

A) Detection of RNA from HCV samples of different titer. Sample 1: negative control, sample 2: positive control at lowest detection limit, sample 3 – 9: different HCV titer. Detection: Artus RealArt HCV RNA; Roche LightCycler® 480.

B) Detection of DNA from HBV samples of different titer. Sample 1: negative control, sample 2: positive control at lowest detection limit, sample 3 – 11: different HBV titer. Detection: Artus RealArt HBV DNA; Roche LightCycler® 480. Data was generated by Dr. Tiemann, LABCON-OWL GmbH, Germany.

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Single prep (spin columns) – CE-IVD marked	Preps	REF
NucleoSpin® Dx Virus	50/250	740895.50 / .250
CE-IVD marked Mini spin kit for the isolation of viral DNA and RNA from 150 µL human plasma or serum.		

Related products		
Single prep (spin columns) – CE-IVD marked		
NucleoSpin® Dx Blood	50/250	740899.50 / .250
CE-IVD marked Mini spin kit for the isolation of genomic DNA from 200 μL human whole blood.		
Single prep (spin columns) – <i>not</i> CE-IVD marked		
NucleoSpin® RNA Virus	10/50/250	740956.10/.50/.250
Mini spin kit for the rapid isolation of viral RNA from plasma or serum. For viral DNA isolation, Proteinase K is required (740506).		
NucleoSpin® RNA Virus F	25	740958
Spin kit for RNA isolation from cell-free biological fluids with funnel shaped columns. Large samples of up to 1 mL can be processed and eluted in small volumes ( $50 - 100 \mu L$ ).		
NucleoSpin® Plasma XS	10/50/250	740900.10/.50/.250
Mini spin kit for the rapid purification of circulating DNA from plasma or serum. High recovery, even of short DNA fragments (down to 50 bp). Concentrated DNA eluate due to XS column design (elution in 5 – 30 μL).		
Medium and high throughput – <i>not</i> CE-IVD marked		
NucleoSpin® 8 Virus	12x8/60x8	740643/.5
8-well strips for medium throughput isolation of viral RNA and DNA.		
NucleoSpin® 8 Virus Core Kit	48 x 8	740451.4
Core kit with basic components: NucleoSpin® Virus Binding Strips, buffers, Carrier RNA.		
NucleoSpin® 96 Virus	2x96/4x96	740691.2 / .4
96-well plates for high-throughput isolation of viral RNA and DNA.		
NucleoSpin® 96 Virus Core Kit	4 x 96	740452.4
Core kit with basic components: NucleoSpin® Virus Binding Plate, buffers, Carrier RNA.		
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NucleoMag® 96 Virus	1x96/4x96	744800.1 / .4



Your local distributor

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